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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/398,652 09/17/99 SAMARAS

W 042390.P5120

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QM22/0322

EXAMINER

CHANG, R
ART UNIT PAPER NUMBER

3729
DATE MAILED:

03/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/398,652

Applicant(s)

Samaras et al

Examiner

Rick K. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/2/01 (entered).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-26 is/are pending in the application.
- 4a) Of the above claim(s) 22, 24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-21, 23 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure fails to provide support for "testing at integrated cache speeds."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 19, 21, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gedney et al US 5,483,421 in view of Beers (US 5,680,936).

Gedney discloses fabricating an interposer with organic material; populating the second surface with a plurality of conductive pads; coupling solder balls; coupling at

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least one die; electrically connecting the selected ones of the pads (Fig. 5); and detecting defects of the chip carrier (col. 7, line 23).

Gedney fails to disclose coupling at least one passive device; testing at least one semiconductor die; coupling the interposer to a substrate after testing if at least one semiconductor die passes testing or not coupling if at least one semiconductor die does not pass testing.

Beers discloses testing (50) a substrate with a various components mounted thereon (Fig. 3 shows an integrated chip and a capacitor) and then transporting the "good" boards to 22 and "bad " boards to 23 for the purpose of increasing customer satisfaction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gedney by coupling the interposer to a substrate after testing or detecting defect if at least one semiconductor die passes testing or not coupling if at least one semiconductor die does not pass testing as taught by Beers for the purpose of increasing customer satisfaction.

Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to couple the interposer with at least one passive device as well as testing the interposer in order to lower production costs and regulating the voltage and current to the assembled package.

Response to Arguments

5. Applicant's arguments with respect to claims 19-21, 23 and 26 have been considered but are moot in view of the new ground(s) of rejection.

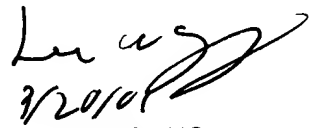
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Conclusion

6. No art rejection has been applied to claim 20 since there are a great deal of confusion and uncertainty as to the proper interpretation of the limitations of claims. Therefore, it would not be proper to reject such claims on the basis of prior art. See MPEP 2173.06.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick K. Chang whose telephone number is 703-308-4784. The examiner can normally be reached on M-F, 5:30 a.m.-1:30 p.m. (EST).

RC
March 17, 2001


LEE YOUNG
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